1   1. A network operations support system for supporting multiple service providers,

2   each having end-users connected to a common network, comprising:

3   a digital repository populated with entries including information about end-users of a

4   first service provider of the multiple service providers and other information about end-users

5   of a second service provider of the multiple service providers;

6   a processor; and

7   a computer readable medium encoded with processor readable instructions that when

8   executed by the processor implement,

9   a common interface mechanism configured to provide a single user interface

10   for the first service provider and the second service provider to access entries in the digital

11   repository, the first service provider having access to entries regarding the end-users of the

12   first service provider and the second service provider having access to entries regarding the

13   end-users of the second service provider.

1   2. The system of Claim 1, wherein:

2   the digital repository is further populated with entries including network management

3   information; and

4   the computer readable medium is further encoded with processor readable instructions

5   that when executed by the processor implement

6   a network management mechanism configured to access and maintain entries

7   in the digital repository regarding network management information.

1   3. The system of Claim 2, wherein the network management information includes

2   network status monitoring information.

1   4. The system of Claim 1, wherein:

2   the digital repository is further populated with

3   entries including network usage information, and

4   entries including end-user provisioning information; and

5   the computer readable medium is further encoded with processor readable

6   instructions that when executed by the processor implement

7   an end-user management mechanism configured to access and

8   maintain entries in the digital repository regarding at least one of network usage information

9   and end-user provisioning information.

1   5. The system of Claim 4, wherein:

2   the network usage information includes at least one of end-user connectivity duration

3   and end-user connectivity time-of-day information; and

4   the end-user provisioning information includes at least one of end-user equipment

5   information, level of service information, and end-user service provider information.

1   6. The system of Claim 1, wherein the common interface mechanism is further

2   configured to provide secure access to entries in the digital repository.

1   7. The system of Claim 6, wherein the common interface mechanism provides secure

2   access by at least one of accepting traffic from a predetermined set of IP addresses,

3   encryption using secure shell, encryption using secure hypertext transfer protocol, user

4   authentication by username and password, and user authentication by a one-time password

5   technology.

1   8. The system of Claim 1, wherein the common interface mechanism comprises a

2   single web portal.

1   9. The system of Claim 8, wherein the common interface mechanism further

2   comprises automated interfaces implemented as at least one of an extensible markup

3   language interface, a file transfer protocol interface, an rsync Internet protocol interface, and

4   an electronic mail interface.

1   10. The system of Claim 1, wherein the digital repository comprises a database.

1   11. The system of Claim 2, wherein the common interface mechanism is further

2   configured to provide access to the network management mechanism for network

3   management personnel.

1   12. The system of Claim 2, wherein the computer readable medium is further

2   encoded with processor readable instructions that when executed by the processor implement

3   an internal personnel access mechanism configured to provide internal personnel with

4   direct access to the network management mechanism.

1   13. The system of Claim 4, wherein the common interface mechanism is further

2   configured to provide access to the end-user management mechanism for at least one of the

3   multiple service providers and network management personnel.

1   14. The system of Claim 4, wherein the computer readable medium is further

2   encoded with processor readable instructions that when executed by the processor implement

3   an internal personnel access mechanism configured to provide internal personnel with

4   direct access to the end-user management mechanism.

1   15. The system of Claim 1, wherein the common network comprises a network

2   dedicated to broadband data transport services.

1   16. The system of Claim 15, wherein the broadband data transport services comprise

2   at least one of Internet access, packetized voice, voice over IP, and video on demand.

1   17. The system of Claim 1, wherein the common network comprises an open access

2   network.

1   18. The system of Claim 1, wherein at least a portion of the common network

2   comprises an Internet protocol network.

1   19. The system of Claim 1, wherein at least a portion of the common network

2   comprises a hybrid fiber optic coaxial network.

1   20. The system of Claim 1, wherein the at least one of the multiple service providers

2   comprises an Internet service provider.

1   21. The system of Claim 1 wherein:

2   the digital repository is further populated with entries including service availability

3   information; and

4   the computer readable medium is further encoded with processor readable instructions

5   that when executed by the processor implement

6   a service availability mechanism configured to access and maintain entries in

7   the digital repository regarding service availability information.

1   22. The system of Claim 21, wherein the service availability information includes

2   information regarding geographic availability of the common network.

1   23. The system of Claim 21, wherein the common interface mechanism is further

2   configured to provide access to the service availability mechanism for at least one of the

3   multiple service providers and network management personnel.

1   24. The system of Claim 21, wherein the computer readable medium is further

2   encoded with processor readable instructions that when executed by the processor implement

3   an internal personnel access mechanism configured to provide internal personnel with

4   direct access to the service availability mechanism.

1   25. The system of Claim 1, wherein:

2   the digital repository is further populated with entries including network asset

3   management information corresponding to assets of the common network; and

4   the computer readable medium is further encoded with processor readable instructions

5   that when executed by the processor implement

6   a network asset management mechanism configured to access and maintain

7   entries in the digital repository regarding network asset management information.

1   26. The system of Claim 25, wherein the common interface mechanism is further

2   configured to provide access to the network asset management mechanism for network

3   management personnel.

1   27. The system of Claim 25, wherein the computer readable medium is further

2   encoded with processor readable instructions that when executed by the processor implement

3   an internal personnel access mechanism configured to provide internal personnel with

4   direct access to the network asset management mechanism.

1   28. The system of Claim 25, wherein the network asset management information

2   includes at least one of a device media access control address, a date of installation, and an

3   inventory location indicator.

1   29. The system of Claim 1, wherein:

2   the digital repository is further populated with entries including trouble ticket status

3   information; and

4   the computer readable medium is further encoded with processor readable instructions

5   that when executed by the processor implement

6   a trouble ticketing mechanism configured to access and maintain entries in the

7   digital repository regarding trouble ticket information.

1   30. The system of Claim 29, wherein the common interface mechanism is further

2   configured to provide access to the trouble ticketing mechanism for at least one of the

3   multiple service providers and network management personnel.

1   31. The system of Claim 29, wherein the computer readable medium is further

2   encoded with processor readable instructions that when executed by the processor implement

3   an internal personnel access mechanism configured to provide internal personnel with

4   direct access to the trouble ticketing mechanism.

1   32. The system of Claim 29, wherein the trouble ticket status information includes at

2   least one of a trouble ticket status indicator, a problem indicator, an impacted end-user

3   indicator, and a service provider indicator.

1   33. The system of Claim 1, wherein:

2   the digital repository is further populated with entries including workforce

3   management information; and

4   the computer readable medium is further encoded with processor readable instructions

5   that when executed by the processor implement

6   a workforce management mechanism configured to access and maintain

7 entries in the digital repository regarding workforce management information.

1   34. The system of Claim 33, wherein the common interface mechanism is further

2 configured to provide access to the workforce management mechanism for at least one of the

3 multiple service providers and network management personnel.

1   35. The system of Claim 33, wherein the computer readable medium is further

2 encoded with processor readable instructions that when executed by the processor implement

3   an internal personnel access mechanism configured to provide internal personnel with

4 direct access to the workforce management mechanism.

1   36. The system of Claim 33, wherein the workforce management information

2 includes at least one of a workorder description indicator, a workorder status indicator, an

3 assigned truck indicator, a confirmation number indicator, and an appointment time indicator.

1   37. The system of Claim 4, wherein the end-user management mechanism is further

2 configured to provision new end-users.

1   38. The system of Claim 1, wherein:

2   the digital repository is further populated with entries including billing information

3 corresponding to usage of the common network by end-users of at least one of the multiple

4 service providers; and

5   the computer readable medium is further encoded with processor readable instructions

6   that when executed by the processor implement

7   a billing mechanism configured to access and maintain entries in the digital

8   repository regarding billing information and to generate bills for each of the multiple service

9   providers based on usage of the common network by respective end-users.

1   39. The system of Claim 38, wherein the common interface mechanism is further

2   configured to provide access to the billing mechanism for at least one of the multiple service

3   providers and network management personnel.

1   40. The system of Claim 38, wherein the computer readable medium is further

2   encoded with processor readable instructions that when executed by the processor implement

3   an internal personnel access mechanism configured to provide internal personnel with

4   direct access to the billing mechanism.

1   41. The system of Claim 38, wherein the billing information includes at least one of

2   an end-user identification indicator, a service level purchased indicator, an end-user service

3   provider indicator, a usage amount indicator, a detailed billing amount, a cumulative billing

4   amount, and a billing period indicator.

1   42. The system of Claim 1, wherein:

2   the digital repository is further populated with entries including general ledger and

3   accounts payable information corresponding to at least one of the multiple service providers;

4   and

5   the computer readable medium is further encoded with processor readable instructions

6   that when executed by the processor implement

7   a general ledger and accounts payable mechanism configured to access and

8   maintain entries in the digital repository regarding general ledger and accounts payable

9   information.

1   43. The system of Claim 42, wherein the common interface mechanism is further

2   configured to provide access to the general ledger and accounts payable mechanism for

3   network management personnel.

1   44. The system of Claim 42, wherein the computer readable medium is further

2   encoded with processor readable instructions that when executed by the processor implement

3   an internal personnel access mechanism configured to provide internal personnel with

4   direct access to the general ledger and accounts payable mechanism.

1   45. The system of Claim 1, wherein at least a portion of the common network

2   comprises a Data Over Cable Service Interface Specification network.

1   46. The system of Claim 1, wherein at least a portion of the common network

2   comprises a European Data Over Cable Service Interface Specification.

1   47. The system of Claim 1, wherein the digital repository is implemented as a single

2   instance of a database.

1   48. The system of Claim 1, wherein the digital repository is implemented as at least

2   two instances of a database, at least one of the at least two instances of the database serving

3   as a master database.

1   49. The system of Claim 1, wherein the common interface mechanism is further

2   configured to be customizable by each of the multiple service providers.

1   50. The system of Claim 49, wherein the common interface mechanism may be

2   customized by at least one of using a sales script and adding a logo.

1   51. The system of Claim 1, wherein the common interface mechanism is further

2   configured such that each of the multiple service providers may restrict access based on at

3   least one of a userid and a role.

1   52. The system of Claim 1, wherein the computer readable medium is further

2   encoded with processor readable instructions that when executed by the processor implement

3   an internal personnel access mechanism configured to provide internal personnel

4   access to the digital repository.

1   53. A computer program product, comprising:

2   a computer storage medium; and

3   a computer program code mechanism embedded in the computer storage medium for

4   causing a processor to support multiple service providers each having end-users connected to

5   a common network, the computer program code mechanism having,

6   a first computer code device configured to provide a single user interface for a

7   first service provider of the multiple service providers and a second service provider of the

8   multiple service providers for accessing information in a database, the first service provider

9   having access to entries of the database regarding the end-users of the first service provider

10   and the second service provider having access to entries of the database regarding the end-

11   users of the second service provider.

1   54. The computer program product of Claim 53, further comprising:

2   a second computer code device configured to maintain network management

3   information in the database, wherein

4   the first computer code device is further configured to provide network management

5   personnel with access to the second computer code device to maintain entries of the database

6   regarding network management information.

1   55. The computer program product of Claim 54, further comprising:

2   a third computer code device configured to provide internal personnel with direct

3   access to the second computer code device to maintain entries of the database regarding

4   network management information.

1   56. The computer program product of Claim 53, wherein the first computer code

2   device is further configured to provide secure access to entries in the database.

1   57. The computer program product of Claim 53, further comprising:

2   a second computer code device configured to maintain at least one of network usage

3   information and end-user provisioning information in the database, wherein

4   the first computer code device is further configured to provide at least one of the

5   multiple service providers and network management personnel with access to the second

6   computer code device to maintain entries of the database regarding the at least one of

7   network usage information and end-user provisioning information.

1   58. The computer program product of Claim 57, further comprising:

2   a third computer code device configured to provide internal personnel with direct

3   access to the second computer code device to maintain entries of the database regarding the at

4   least one of network usage information and end-user provisioning information.

1   59. The computer program product of Claim 57, wherein the second computer code

2   device is further configured to provision new end-users of the common network.

1   60. The computer program product of Claim 53, wherein the common network

2   comprises a network dedicated to broadband data transport services.

1   61. The computer program product of Claim 60, wherein the broadband data

2   transport services comprise at least one of Internet access, packetized voice, voice over IP,

3   and video on demand.

1   62. The computer program product of Claim 53, wherein the common network

2   comprises an open network.

1   63. The computer program product of Claim 53, wherein at least a portion of the

2   network comprises an Internet protocol network.

1   64. The computer program product of Claim 53, wherein at least a portion of the

2   network comprises a hybrid fiber optic coaxial network.

1   65. The computer program product of Claim 53, wherein at least one of the multiple

2   service providers comprises an Internet service provider.

1   66. The computer program product of Claim 53, further comprising:

2   a second computer code device configured to maintain service availability

3   information in the database, wherein

4   the first computer code device is further configured to provide at least one of the

5   multiple service providers and network management personnel with access to the second

6   computer code device to access entries of the database regarding service availability

7   information.

1   67. The computer program product of Claim 66, further comprising:

2   a third computer code device configured to provide internal personnel with direct

3   access to the second computer code device to maintain entries of the database regarding

4   service availability information.

1   68. The computer program product of Claim 53, further comprising:

2   a second computer code device configured to maintain network asset management

3   information in the database, wherein

4   the first computer code device is further configured to provide at least one of the

5   multiple service providers and network management personnel with access to the second

6   computer code device to maintain entries of the database regarding network asset

7   management information.

1   69. The computer program product of Claim 68, further comprising:

2   a third computer code device configured to provide internal personnel with direct

3   access to the second computer code device to maintain entries of the database regarding

4   network asset management information.

1   70. The computer program product of Claim 53, further comprising:

2   a second computer code device configured to maintain trouble ticket status

3   information in the database, wherein

4   the first computer code device is further configured to provide at least one of the

5   multiple service providers and network management personnel with access to the second

6   computer code device to maintain entries of the database regarding trouble ticket status

7   information.

1   71. The computer program product of Claim 70, further comprising:

2   a third computer code device configured to provide internal personnel with direct

3   access to the second computer code device to maintain entries of the database regarding

4   trouble ticket status information.

1   72. The computer program product of Claim 53, further comprising:

2   a second computer code device configured to maintain workforce management

3   information in the database, wherein

4   the first computer code device is further configured to provide at least one of the

5   multiple service providers and network management personnel with access to the second

6   computer code device to maintain entries of the database regarding workforce management

7   information.

1   73. The computer program product of Claim 72, further comprising:

2   a third computer code device configured to provide internal personnel with direct

3   access to the second computer code device to maintain entries of the database regarding

4   workforce management information.

1   74. The computer program product of Claim 53, further comprising:

2   a second computer code device configured to access billing information

3   corresponding to usage of the common network by the end-users of the first service provider

4   and the end-users of the second service provider in the database;

5   a third computer code device configured to maintain billing information

6   corresponding to usage of the common network by the end-users of the first service provider

7   and the end-users of the second service provider in the database; and

8   a fourth computer code device configured to generate bills for the first service

9   provider and the second service provider based on usage of the common network by

10   respective end-users, wherein

11   the first computer code device is further configured to provide at least one of the

12   multiple service providers and network management personnel with access to the second

13   computer code device to access entries of the database regarding billing information, and to

14   provide network management personnel with access to at least one of the third computer

15   code device and the fourth computer code device to maintain entries of the database

16   regarding billing information.

1   75. The computer program product of Claim 74, further comprising:

2   a fifth computer code device configured to provide internal personnel with direct

3   access to the third computer code device to maintain entries of the database regarding billing

4   information.

1   76. The computer program product of Claim 53, further comprising:

2   a second computer code device configured to maintain general ledger and accounts

3   payable information in the database, wherein

4   the first computer code device is further configured to provide network management

5   personnel with access to the second computer code device to maintain entries of the database

6   regarding general ledger and accounts payable information.

1   77. The computer program product of Claim 76, further comprising:

2   a third computer code device configured to provide internal personnel with direct

3   access to the second computer code device to maintain entries of the database regarding

4   general ledger and accounts payable information.

1   78. The computer program product of Claim 53, wherein at least a portion of the

2   common network comprises a Data Over Cable Service Interface Specification network.

1   79. The computer program product of Claim 53, wherein at least a portion of the

2   common network comprises a European Data Over Cable Service Interface Specification

3   network.

1   80. The computer program product of Claim 53, wherein the first computer code

2   device is further configured to provide a single user interface that is customizable by each of

3   the multiple service providers.

1   81. The computer program product of Claim 80, wherein the single user interface

2   may be customized by at least one of using a sales script and adding a logo.

1   82. The computer program product of Claim 53, wherein the first computer code

2   device is further configured such that each of the multiple service providers may restrict

3   access to the single user interface based on at least one of a userid and a role.

1   83. A method for providing operations support for a first service provider of multiple

2   service providers and a second service provider of multiple service providers, each having

3   end-users connected to a common network, comprising the steps of:

4   provisioning a first end-user of the first service provider onto the common network;

5   storing first end-user information in a database corresponding to the first end-user;

6   associating the first end-user information with the first service provider in the

7 database;

8   provisioning a second end-user of the second service provider onto the common

9 network;

10   storing second end-user information in the database corresponding to the second end-

11 user;

12   associating the second end-user information with the second service provider in the

13 database; and

14   accessing information in the database via a single user interface by the first service

15 provider and the second service provider, the first service provider having access to

16 information regarding end-users of the first service provider and the second service provider

17 having access to information regarding end-users of the second service provider.

1   84. The method of Claim 83, further comprising the steps of:

2   monitoring a status of the common network;

3   storing network management information in the database corresponding to the status

4 of the common network determined in the monitoring step; and

5   accessing the network management information in the database via the single user

6 interface by network management personnel.

1   85. The method of claim 83, further comprising the steps of:

2   gathering first end-user provisioning information from the first end-user;

3   storing the first end-user provisioning information in the database;

4   associating the first end-user provisioning information with the first end-user in the

5   database;

6   monitoring a usage of the common network by the first end-user;

7   storing first end-user network usage information in the database corresponding to the

8   usage of the common network by the first end-user;

9   associating the first end-user network usage information with the first end-user in the

10   database;

11   gathering second end-user provisioning information from the second end-user;

12   storing the second end-user provisioning information in the database;

13   associating the second end-user provisioning information with the second end-user in

14   the database;

15   monitoring a usage of the common network by the second end-user;

16   storing second end-user network usage information in the database corresponding to

17   the usage of the common network by the second end-user; and

18   associating the second end-user network usage information with the second end-user

19   in the database.

1   86. The method of Claim 83, wherein the accessing step comprises providing secure

2   access to the database to entries in the database.

1   87. The method of Claim 86, wherein secure access is provided by at least one of

2   accepting traffic from a predetermined set of IP addresses, encryption using secure shell,

3   encryption using secure hypertext transfer protocol, user authentication by username and

4   password, and user authentication by one-time password technology.

1   88. The method of Claim 83, wherein the accessing step comprises accessing the

2   database through a single web portal.

1   89. The method of Claim 83, wherein the accessing step comprises accessing the

2   database through an automated interface implemented as at least one of an extensible markup

3   language interface, a file transfer protocol interface, an rsync Internet protocol interface, and

4   an electronic mail interface.

1   90. The method of Claim 83, wherein the common network comprises a network

2   dedicated to broadband data transport services.

1   91. The method of Claim 90, wherein the broadband data transport services comprise

2   at least one of Internet access, packetized voice, voice over IP, and video on demand.

1   92. The method of Claim 83, wherein the common network comprises an open access

2   network.

1   93. The method of Claim 83, wherein at least a portion of the common network

2   comprises an Internet protocol network.

1   94. The method of Claim 83, wherein at least a portion of the common network

2   comprises a hybrid fiber optic coaxial network.

1   95. The method of Claim 83, wherein at least a portion of the common network

2   comprises a Data Over Cable Service Interface Specification network.

1   96. The method of Claim 83, wherein at least a portion of the common network

2   comprises a European Data Over Cable Service Interface Specification network.

1   97. The method of Claim 83, wherein at least one of the multiple service providers

2   comprises an Internet service provider.

1   98. The method of claim 83, further comprising the steps of:

2   gathering service availability information corresponding to a geographic availability

3   of the common network;

4   storing the service availability information in the database;

5   requesting connectivity to the common network by a third end-user to one of the first

6   service provider and the second service provider;

7   querying the service availability information in the database via the single user

8   interface by the one of the first service provider and the second service provider to determine

9   an availability for the third end-user; and

10   indicating to the third end-user that the common network is one of available and not

11   available based on a result of the querying step.

1   99. The method of Claim 83, further comprising the steps of:

2   storing network asset management information in the database corresponding to

3   components of the common network;

4   accessing the network asset management information in the database via the single

5 user interface by network management personnel.

1   100. The method of Claim 83, further comprising the steps of:

2   opening a first trouble ticket by the first service provider via the single user interface;

3   storing a first trouble ticket entry in the database corresponding to the first trouble

4 ticket;

5   associating the first trouble ticked entry with the first service provider in the database;

6   opening a second trouble ticket by the second service provider via the single user

7 interface;

8   storing a second trouble ticket entry in the database corresponding to the second

9 trouble ticket;

10   associating the second trouble ticket entry with the second service provider in the

11 database;

12   querying the database for at least one of the first trouble ticket entry and the second

13 trouble ticket entry by network management personnel;

14   updating a status of the at least one of the first trouble ticket entry and the second

15 trouble ticket entry by network personnel; and

16   storing the at least one of the first trouble ticket entry and the second trouble ticket

17 entry in the database with the status as updated in the updating step.

1   101. The method of Claim 100, further comprising the step of:

2   associating at least one of the first trouble ticket and the second trouble ticket with an

3 end-user in the database indicating a particular end-user having a problem.

1   102. The method of Claim 83, further comprising the steps of:

2   storing a workforce management entry in the database corresponding to workforce

3   availability;

4   querying the database for the workforce management entry to determine workforce

5   availability to provide connectivity to at least one of the first end-user and the second end-

6   user;

7   updating the workforce management entry to schedule an appointment to provide

8   connectivity to the at least one of the first end-user and the second end-user;

9   storing the workforce management entry in the database as updated in the updating

10   step; and

11   indicating to the at least one of the first end-user and the second end-user the

12   appointment scheduled in the updating step.

1   103. The method of Claim 83, further comprising the steps of:

2   monitoring a usage of the common network by the first end-user;

3   storing a first end-user usage entry in the database corresponding to a level of usage

4   of the common network by the first end-user;

5   associating the first end-user usage entry with the first end-user in the database;

6   querying the database for the first end-user usage entry and the first end-user entry;

7   generating first end-user billing information for the first end-user based on the first

8   end-user usage entry and the first end-user entry;

9   storing a first end-user billing entry corresponding to first end-user billing information

10   generated in the generating first end-user billing information step in the database;

11   associating the first end-user billing entry with the first end-user in the database;

12   monitoring a usage of the common network by the second end-user;

13   storing a second end-user usage entry in the database corresponding to a level of

14 usage of the common network by the second end-user;

15   associating the second end-user usage entry with the second end-user in the database;

16   querying the database for the second end-user usage entry and the second end-user

17 entry;

18   generating second end-user billing information for the second end-user based on the

19 second end-user usage entry and the second end-user entry;

20   storing a second end-user billing entry corresponding to second end-user billing

21 information generated in the generating second end-user billing information step in the

22 database; and

23   associating the second end-user billing entry with the second end-user in the database.

1   104. The method of Claim 80, further comprising the step of:

2   sending to at least one of the multiple service providers, billing information

3 corresponding to respective end-users.

1   105. The method of Claim 83, further comprising the steps of:

2   stroring general ledger and accounts payable information in the database; and

3   accessing the general ledger and accounts payable information via the single user

4 interface by network management personnel.

1   106. A system for providing operations support for a first service provider of multiple

2 service providers and a second service provider of multiple service providers, each having

3 end-users connected to a common network, comprising:

4   means for provisioning a first end-user of the first service provider onto the common

5 network;

6   means for storing a first end-user entry in a database corresponding to the first end-

7 user;

8   means for associating the first end-user entry with the first service provider in the

9 database;

10   means for provisioning a second end-user of the second service provider onto the

11 common network;

12   means for storing a second end-user entry in the database corresponding to the second

13 end-user;

14   means for associating the second end-user entry with the second service provider in

15 the database; and

16   means for accessing information in the database via a single user interface by the first

17 service provider and the second service provider, the first service provider having access to

18 entries regarding end-users of the first service provider and the second service provider

19 having access to entries regarding end-users of the second service provider.

1   107. The system of Claim 1 wherein:

2   the computer readable medium is further encoded with processor readable instructions

3 that when executed by the processor implement

4   a data logging mechanism configured to maintain a log of entries regarding

5   end-user identification information.

1   108. The system of Claim 107, wherein the end-user identification information

2   includes at least one of an end-user device MAC address, a DHCP IP address granted to an

3   end-user device, and end-user service account information.

1   109. The system of Claim 107 wherein:

2   the computer readable medium is further encoded with processor readable instructions

3   that when executed by the processor implement

4   a data log access mechanism configured to provide access to the log of entries

5   maintained by the data logging mechanism for at least one of network management personnel

6   and at least one of the multiple service providers.

1   110. The system of Claim 109, wherein the common interface mechanism is further

2   configured to provide a single user interface for the first service provider and the second

3   service provider to access the log of entries maintained by the data logging mechanism, the

4   first service provider having access to entries regarding end-users of the first service provider

5   and the second service provider having access to entries regarding end-users of the second

6   service provider.

1   111. The system of Claim 109, wherein the data log access mechanism is further

2   configured to provide access to the log of entries via at least one of a file transfer protocol

3   interface, an electronic mail interface, a web-based interface, and an rsync Internet protocol

4   interface.

1   112. The system of Claim 109, wherein the data log access mechanism is further

2   configured to provide access for network management personnel, the first service provider

3   and the second service provider to access the log of entries maintained by the data logging

4   mechanism, network management personnel having access to entries regarding all end-users,

5   the first service provider having access to entries regarding end-users of the first service

6   provider and the second service provider having access to entries regarding end-users of the

7   second service provider.

1   113. The computer program product of Claim 53, further comprising:

2   a second computer code device configured to maintain a log of entries regarding end-

3   user identification information.

1   114. The computer program product of Claim 113, wherein the end-user

2   identification information includes at least one of an end-user device MAC address, a DHCP

3   IP address granted to an end-user device, and end-user service account information.

1   115. The computer program product of Claim 113, further comprising:

2   a third computer code device configured to provide access to the log of entries

3   maintained by the second computer code device for network management personnel, the first

4   service provider and the second service provider, network management personnel having

5   access to entries regarding all end-users, the first service provider having access to entries

6   regarding end-users of the first service provider and the second service provider having

7   access to entries regarding end-users of the second service provider.

1   116. The computer program product of Claim 53 wherein at least a portion of the

2   computer program code mechanism is configured to be invoked through an application

3   program interface.

1   117. The computer program product of Claim 53, further comprising:

2   a second computer code device configured to perform at least one of data

3   warehousing and data mining of information in the database.